

1 TITLE: PEACH TREE NAMED: 'VISTA SNOW'

2 NAMES AND ADDRESSES OF INVENTORS:

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9 CITIZENSHIP: All inventors are citizens of the United States
10 of America.

11 BACKGROUND OF THE VARIETY:

12 FIELD OF THE INVENTION

13 In the field of plant genetics, we conduct an extensive
14 and continuing plant-breeding program including the
15 organization and asexual reproduction of orchard trees, and
16 of which plums, peaches, nectarines, apricots, cherries and
17 interspecifics are exemplary. It was against this background
18 of our activities that the present variety of peach tree was
19 originated and asexually reproduced by us in our experimental
20 orchard located near Modesto, California.

21 PRIOR VARIETIES: Among the existing varieties of peach and
22 nectarine trees, which are known to us, and mentioned herein,
23 'Desertgold' Peach (non-patented), 'Floraprince' Peach (non-
24 patented), 'Rich May' Peach (U.S. Plant Patent #7432),
25 'Redwing' Peach (U.S. Plant Patent #621), 'Giant Babcock'
26 Peach (U.S. Plant Patent #1353), 'White Lady' Peach (U.S.
27 Plant Patent #5821), 'May Crest' Peach (U.S. Plant Patent
28 #4064) and 'Early Sungrand' Nectarine (U.S. Plant Patent
#1420).

1 STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH AND
2 DEVELOPMENT: Not applicable.

3
4 ORIGIN OF THE VARIETY: The new and distinct variety of peach
5 tree (*Prunus persica*) was originated by us in our
6 experimental orchard located near Modesto, California as a
7 first generation cross between two proprietary seedlings with
8 field identification numbers '174LE309' and '2LD470'. The
9 maternal parent (174LE309) was originated by us from crosses
10 between the following varieties; 'Desertgold' Peach (non-
11 patented), 'Floraprince' Peach (non-patented), 'Rich May'
12 Peach (U.S. Plant Patent #7432) and 'Early Sungrand'
13 Nectarine (U.S. Plant Patent #1420). The pollen parent
14 (2LD470) originated from crosses between the following
15 varieties; 'Redwing' Peach (U.S. Plant Patent #621), 'Giant
16 Babcock' Peach (U.S. Plant Patent #1353), 'White Lady' Peach
17 (U.S. Plant Patent #5821), 'May Crest' Peach (U.S. Plant
18 Patent #4064) and 'Early Sungrand' Nectarine (U.S. Plant
19 Patent #1420). We planted and maintained a large group of
20 these first generation seedlings on their own root system,
21 during which time one seedling, which is the present variety,
22 exhibited desirable tree and fruit characteristics and was
23 selected in 1998 for asexual propagation and
24 commercialization.

25
26 ASEXUAL REPRODUCTION OF THE VARIETY: Asexual reproduction of
27 the new and distinct variety of peach tree was by budding to
28 'Nemaguard' Rootstock (non-patented), as performed by us in

1 our experimental orchard located near Modesto, California,
2 and shows that reproductions run true to the original tree
3 and all characteristics of the tree and its fruit are
4 established and transmitted through succeeding asexual
5 propagations.

6
7 SUMMARY OF THE NEW VARIETY: The new variety of peach tree is
8 of large size, vigorous, upright growth and a regular and
9 productive bearer of medium size, firm, white flesh,
10 clingstone fruit with a mild, sweet, sub-acid flavor and
11 excellent eating quality. The fruit is further characterized
12 by ripening in the early maturity season, being relatively
13 uniform in ripening, having cream skin color, nearly
14 overspread with an attractive orange-red blush and nearly
15 globose in shape. The tree having a low winter chilling
16 requirement of approximately 250 hours at or below 45°F and,
17 in comparison to the low chilling variety 'Desertgold' Peach
18 (non-patented), the fruit of the new variety is white flesh
19 instead of yellow, has firmer flesh with greater storage and
20 shipping quality, and is approximately 27 days earlier in
21 maturity. In comparison to the yellow flesh peach 'May
22 Crest' Peach (U.S. Plant Patent #4064), the new variety
23 requires approximately 400 hours less winter chilling, has
24 white flesh and is approximately 17 days earlier in maturity.

25
26 PHOTOGRAPH OF THE VARIETY: The accompanying color
27 photographic illustration shows typical specimens of the
28 foliage and fruit of the present new peach variety. The

1 illustration shows the upper and lower surface of the leaves,
2 an exterior and sectional view of a fruit divided in its
3 suture plane to show flesh color, pit cavity and the stone
4 remaining in place. The photographic illustration was taken
5 shortly after being picked (shipping ripe) and the colors are
6 as nearly true as is reasonably possible in a color
7 representation of this type.

8
9 DESCRIPTION OF THE VARIETY: The following is a detailed
10 botanical description of the new variety of peach tree, its
11 flowers, foliage and fruit, as based on observations of 5
12 year old specimens grown near Modesto, California, with color
13 in accordance with Munsell Book of Color.

14 TREE

15 Size:

16 Large, normal for peach trees.
17 Pruned 3 to 3.5 meters in
height for economical
harvesting of fruit.

18 Vigor:

19 Vigorous, tree growth of 1.5 to
20 2 meters the first growing
season.
Varies with fertility and type
of the soil.

21 Form:

22 Upright.
23 Usually pruned to vase shape.

24 Branching Habit:

25 Upright, crotch angle
approximately 35°, increases
with heavy crop load.

26 Productivity:

27 Productive, normal thinning and
spacing of fruit necessary
for desired market size
28 fruit.

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Bearer: Regular, adequate fruit set 3 consecutive years.
No alternate bearing observed.

Fertility: Self fertile.

Density: Medium dense.
Pruning to vase shape desirable to enhance fruit color and keep fruit wood healthy.

Hardiness: Hardy in all stone fruit growing areas of California.
Tree grown in USDA Hardiness Zone 9.
Winter chilling requirement approximately 250 hours at or below 45°F.

TRUNK

Size: Medium stocky.
Average circumference 49.0 cm at 20.8 cm above ground on a 5 year old tree.

Stocky: Medium stocky.

Texture: Medium shaggy.

Color: Varies from 5YR 6/2 to 5YR 5/2.

BRANCHES

Size: Medium, normal for peach trees.
Average circumference 25.1 cm at 1 meter above ground.
Average crotch angle 35°.

Surface Texture: New growth smooth, varies from medium to rough with age.

Lenticels:

Average number 54 in a 25.8 square cm area.
Average length 2.9 mm.
Average width 1.1 mm.
Color varies from 5YR 6/8 to 5YR 5/8.

Color:

New growth varies from 5GY 6/6 to 7.5R 5/4 when exposed to sunlight.
Old growth varies from 5YR 4/4 to 7.5YR 3/4.
Varies with age of growth.

LEAVES

Size:

Large.
Average length 146.5 mm.
Average width 33.0 mm.

Form:

Lanceolate.

Apex:

Acuminate.

Base:

Cuneate.

Margin:

Crenate.

Thickness:

Medium.

Surface Texture:

Upper surface relatively smooth, slight indentations over midrib and leaf veins, glabrous.
Lower surface relatively smooth, small ridges created by midrib and pinnate venation, glabrous.

Petiole:

Average length 10.7 mm.
Average width 1.5 mm.
Color varies from 2.5GY 6/6 to 5GY 7/6.
Grooved longitudinally.
Glabrous.

Glands:

Reniform.

Size - medium.

Average length 1.2 mm.

Average diameter 0.7 mm.

Average number 3, varies from 3 to 5.

Located primarily on base of leaf blade and upper portion of petiole.

Color varies from 2.5GY 7/6 to 2.5GY 6/8.

Color:

Upper surface varies from 2.5GY 4/6 to 5GY 3/6.

Lower surface varies from 5GY 5/4 to 5GY 4/4.

Midvein color varies from 2.5GY 7/6 to 5GY 7/6.

FLOWER BUDS

Size:

Large.

Average length 14.6 mm.

Average diameter 9.9 mm.

Hardiness:

Hardy in all stone fruit growing areas of California.

Form:

Plump, conical, becoming elongated before opening.

Pedicel:

Average length 3.5 mm.

Average width 1.4 mm.

Color varies from 2.5GY 6/8 to 5GY 5/6.

Color:

Varies from 7.5RP 5/4 to 5RP 8/6.

FLOWERS

Size:

Large, showy.

Average height 18.5 mm.

Average diameter 36.2 mm.

Petals:

Number 5, alternately arranged to sepals.
Orbicular, apex rounded, base narrows at point of attachment.
Average length 17.1 mm.
Average width 16.0 mm.
Margin - sinuate, slightly cupped.
Upper and lower surfaces glabrous.
Color varies from 5RP 8/6 to 7.5RP 8/6.

Sepals:

Number 5, alternately arranged to petals.
Shape - ovate, apex rounded.
Average length 5.6 mm.
Average width 4.7 mm.
Upper surface glabrous, lower surface pubescent.
Color - upper surface varies from 5GY 6/6 to 5GY 5/8, lower surface varies from 7.5RP 4/4 to 7.5RP 3/6.

Stamens:

Average number 44 per flower.
Average filament length 14.0 mm.
Filament color varies from N9.5/ to 5RP 8/4.
Anther color varies from 10RP 5/10 to 10RP 4/10.

Pollen:

Self fertile.
Color - 2.5Y 8/10.

Pistil:

Number - normally one, varies from 1 to 2.
Surface pubescent.
Average length 15.7 mm.
Position of stigma - average 1.1 mm above anthers.
Color varies from 10Y 8/4 to 10Y 8/6.

Fragrance:

Slight.

Blooming Period:

Date of First Bloom
February 17, 2003.

Date of Petal Fall
February 27, 2003.

Varies slightly with climatic
conditions.

Color:

Varies from 5RP 7/6 to 7.5RP
8/4, color fades with age of
flower.

Number Flowers per Flower Bud:

Normally one.

Pedice:

Average length 3.9 mm.

Average width 1.3 mm.

Color varies from 2.5GY 6/6 to
5GY 5/6.

FRUIT

Maturity When Described:

Firm ripe.

Date of First Picking:

May 5, 2003

Date of Last Picking:

May 10, 2003, varies slightly
with climatic conditions.

Size:

Medium.

Average diameter axially 56.6
mm.

Average transversely in suture
plane 57.2 mm.

Average weight 103.5 grams.

Average weight varies
slightly with fertility of
the soil, amount of thinning
and climatic conditions.

Form:

Globose.

Suture:

Shallow, extends from base to
apex.

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Ventral Surface:
 Nearly smooth, very slightly
 lipped.

Apex:
 Slight tip.

Base:
 Retuse.

Cavity:
 Rounded to slightly elongated
 in suture plane.
 Average depth 3.3 mm.
 Average diameter 10.2 mm.

STEM

Size:
 Small.
 Average length 7.2 mm.
 Average diameter 3.6 mm.

Color:
 Varies from 2.5GY 6/8 to 5GY
 6/6.

FLESH

Ripens:
 Evenly.

Texture:
 Firm.

Fibers:
 Few, small, tender.

Firmness:
 Firmer than most early maturing
 varieties, such as
 'Desertgold' Peach (non-
 patented).

Aroma:
 Slight to moderate.

Amydgalin:
 Undetected.

Eating Quality:
 Excellent, mild, sub-acid.

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Flavor: Very good.

Juice: Moderate amount, enhances flavor.

Brix: Average 11.1°, varies slightly with amount of fruit per tree and climatic conditions.

Color: Varies from 5Y 9/2 to 7.5Y 9/2. Pit cavity varies from 5Y 8.5/4 to 5Y 8.5/6.

SKIN

Thickness: Medium.

Surface: Smooth.

Down: Moderate amount, very short in length.

Tendency to Crack: None.

Color: Ground color varies from 2.5Y 8.5/8 to 5Y 9/6. Overspread with 5R 4/10 to 7.5R 5/10 on approximately 70% of the fruit.

Tenacity: Tenacious to flesh.

Astringency: None.

STONE

Type: Clingstone.

Size: Medium. Average length 26.3 mm.

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Average width 18.8 mm.
Average depth 14.0 mm.

Form:
Obovoid.

Base:
Flat.

Apex:
Nearly rounded, slight point.
Average length 0.3 mm.

Surface:
Very lightly pitted throughout,
pit cavities vary from round
to slightly elongated.
One furrow on each side of
suture.

Sides:
Vary from equal to unequal with
one side extending further
from suture plane.

Ridges:
Relatively small and smooth.

Tendency to Split:
Very slight.

Color:
5Y 9/2, when dry.

KERNAL

Form:
Ovate.

Taste:
Bitter.

Viability:
Non-viable, incomplete embryo.

Size:
Medium.
Average length 15.3 mm.
Average width 9.9 mm.
Average depth 5.0 mm.

Skin Color:
5Y 8.5, when dry.

1 USE

2 Dessert.
3 Market - local and long distance.

4 KEEPING QUALITY

5 Good, held firm in cold storage at 38° to
6 42°F for 10 days without
7 internal breakdown or
8 appreciable loss of flavor.

9 SHIPPING QUALITY

10 Good, minimal bruising of flesh or skin
11 scarring during picking and
12 packing trials.

13 PLANT/FRUIT DISEASE RESISTANCE/SUSCEPTIBILITY

14 No specific testing for
15 relative plant/fruit disease
16 resistance/susceptibility
17 has been designed. Under
18 close observation during
19 planting, growing, and
20 harvesting of fruit, under
21 normal cultural and growing
22 conditions near Modesto,
23 California, no particular
24 plant/fruit disease
25 resistance or susceptibility
26 has been observed. Any
27 variety or selection
28 observed during indexing of
plant characteristics with
abnormal fungus, bacterial,
virus or insect
susceptibility is destroyed
and eliminated from our
breeding program.

23 The present new variety of peach tree, its flowers,
24 foliage and fruit herein described may vary in slight detail
25 due to climate, soil conditions and cultural practices under
26 which the variety may be grown. The present description is
27 that of the variety grown under the ecological conditions
28 prevailing near Modesto, California.